

Mikulin, John

From: MIKULIN, JOHN
Sent: Monday, January 13, 2020 12:44 PM
To: MIKULIN, JOHN
Subject: CATI Liaisons 1/9/20: Next Steps & Notes
Attachments: CATI_2020 Work Plan_DRAFT_1-13-20.docx; CARB_Optional Low NOx Certified HD Engines_1-9-20.pdf

Importance: High

Greetings [Clean Air Technology Initiative \(CATI\)](#) Liaisons & invited guests:

Below you will find my notes from the Thursday 1/9/20 CATI Liaisons teleconference. For your convenience, I have inserted the notes on next steps immediately below. Please review these notes and reply to this email message with any corrections, additions, comments and/or questions.

The next CATI Liaisons teleconference is scheduled for Thursday 2/13/20 from 10:00-11:00AM PST/1:00-2:00PM EST. An agenda will be distributed via email prior to 2/13. In the meantime, please feel free contact me with any CATI-related questions, or suggested agenda items. Thanks – John

NEXT STEPS

- **CATI 2020 Work Plan Development**
 - o CATI Liaisons should provide comments/suggested revisions to the proposed 2020 CATI work plan development process.
 - o **Comments due by 5:00PM PST on 2/4/20 via email to:** mikulin.john@epa.gov
- **Caltrans California Freight Mobility Plan**
 - o The CFMP governs California's planning activities and capital investments with respect to freight movement.
 - Main Page - https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp_2020
 - DRAFT CFMP: Chapters 1-6 (343 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftchapter17final.pdf>
 - DRAFT CFMP: Appendices (155 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftappendicesfinal.pdf>
 - o **Comments due by 5:00PM PST on 1/30/20 via email to:** cfmp@dot.ca.gov
- **EPA Cleaner Truck Initiative: Advanced Notice of Proposed Rulemaking (ANPRM)**
 - o Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>
 - Press Release 11/13/18 - <https://www.epa.gov/newsreleases/epa-acting-administrator-wheeler-launches-cleaner-trucks-initiative>
 - OMB OIRA Webpage - <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201910&RIN=2060-AU41>
 - o **ANPRM comment deadline TBA, 30 days from docket posting in Federal Register**
 - Press Release 1/6/20 - <https://www.epa.gov/newsreleases/epa-jumpstarts-administrator-wheelers-cleaner-trucks-initiative>

- Fact Sheet 1/6/20 - <https://www.epa.gov/sites/production/files/2020-01/documents/420f20003.pdf>
 - ANPRM Pre-Publication Version 1/6/20 – <https://www.epa.gov/sites/production/files/2020-01/documents/cleaner-trucks-initiative-anpr-2020-01-06.pdf>
 - Docket ID #EPA-HQ-OAR-2019-0055 – Docket folder TBA @ <https://www.regulations.gov/>
- **DOT National Freight Strategic Plan (NFSP): Request for Information**
 - Requesting public comments on refinement of the NFSP.
 - Main Page - <https://www.transportation.gov/freight>
 - **Comments due by 2:00PM PST on 2/10/20**
 - Main Page - <https://www.transportation.gov/regulations-fr/notices/2019-27897>
 - RFI Document - <https://www.govinfo.gov/content/pkg/FR-2019-12-27/pdf/2019-27897.pdf>
 - Federal Register Page - <https://www.federalregister.gov/documents/2019/12/27/2019-27897/national-freight-strategic-plan-request-for-information>
 - Docket Page - <https://www.regulations.gov/docket?D=DOT-OST-2019-0184>
 - 2016 NFSP Draft - https://www.transportation.gov/sites/dot.gov/files/docs/DRAFT_NFSP_for_Public_Comment_508_10%2015%2015%20v1.pdf
- **EPA Targeted Airshed Grant (TAG) Program**
 - FY19 RFA announced 11/26/19 = \$50.3M nationwide; ≤\$10M/application to assist state, local and/or tribal air pollution control agencies in developing plans and implementing projects to reduce air pollution in the nation's most impacted airsheds.
 - **Applications due by 8:59PM PST on 2/14/20**
 - Main Page - <https://www.epa.gov/grants/2019-targeted-airshed-grant-program>
 - RFA Document - https://www.epa.gov/sites/production/files/2019-11/documents/fy19_tag_rfa_final11-26-19_0.pdf
 - Contact Trina Martynowicz with questions regarding TAG projects in California - martynowicz.trina@epa.gov / 415-972-3474
- **EPA Diesel Emissions Reduction Act (DERA): National Grants Program**
 - FY20 RFA announced 12/9/19 = ~\$44M nationwide; ≤\$4M/application in Region 9 for heavy-duty diesel replacement, repower and retrofit projects.
 - **Applications due by 8:59PM PST on 2/26/20**
 - Main Page - <https://www.epa.gov/cleandiesel/clean-diesel-national-grants>
 - FAQ - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-qa.pdf>
 - Applicant Webinar Presentation - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-national-rfa-webinar-2019-12-11.pdf>
 - RFA Document - <https://www.epa.gov/sites/production/files/2019-12/documents/2020-dera-national-grants-competition-12-2019.pdf>
 - Contact Penny McDaniel with questions regarding DERA projects in California – mcdaniel.penelope@epa.gov / 415-947-4203
- **FHWA Alternative Fuel Corridor Designations**
 - FAST Act, Section 1413 requires US DOT to designate national electric vehicle charging, hydrogen, propane and natural gas fueling corridors.
 - **Nominations due by 2:00PM PST on 2/26/20**
 - Main Page - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/
 - Request for Nominations - https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/rfn4.cfm

- Frequently Asked Questions - https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/faq/index.cfm
- Informational Webinar Archive - https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/webinars/
- **SJVAPCD Technology Advancement Program (TAP) Project Interest Form/Open Solicitation**
 - TAP has shifted from a formal grant RFP process to a one-page interest form, which will help streamline the District's identification of prospective demonstration project development opportunities.
 - **Open Project Solicitation - Direct potential clean air technology demonstration partners to SJVAPCD's TAP webpage:**
 - Main Page - <http://valleyair.org/grants/technologyadvancement.htm>
 - Project Interest Form - <http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf>
- **DOE H2@Scale New Markets Funding Opportunity Announcement Notice of Intent**
 - DOE FCTO intends to issue a funding opportunity announcement to support transformational R&D and innovative concepts for expanding hydrogen market opportunities and solutions.
 - Areas of interest will include: 1) Electrolyzer Manufacturing; 2) Carbon Fiber for Compressed Storage Tanks; 3) Heavy-Duty Fuel Cells; 4) HySteel - hydrogen in steel manufacturing/iron refining; 5) New Markets Demonstrations; and 6) Training and Workforce Development.
 - Announcement 12/16/19 - <https://www.energy.gov/eere/fuelcells/articles/energy-department-announces-notice-intent-issue-funding-opportunity-0>
 - EERE Exchange Posting - <https://eere-exchange.energy.gov/Default.aspx#FoaIde84bbd2f-e759-4a66-979d-bd4f82bdc1e4>
 - FOA NOI Document - <https://eere-exchange.energy.gov/FileContent.aspx?FileID=587fc7c1-6514-431b-a09b-fa622e4c8ef3>
- **Heavy-Duty Vehicle NOx Rulemaking**
 - CATI Liaisons should engage in the CARB and EPA HDV NOx rule development processes.
 - CARB HD Low NOx Omnibus Rulemaking
 - Main Page - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>
 - Meetings & Workshops - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox/heavy-duty-low-nox-meetings-workshops>
 - Contacts: Kim Heroy-Rogalski (kim.heroy-rogalski@arb.ca.gov / 916-327-2200) and/or Bill Robertson (bill.robertson@arb.ca.gov / 626-459-4467)
 - CARB Optional Low NOx Emission Standards
 - Main Page - <https://ww3.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>
 - *See attached for a pre-publication reference including all heavy-duty engines currently certified to CARB's optional NOx standards (as of 1/9/20).*
 - Publicly accessible version of this reference TBA on CARB's website @
 - Contact: Daniel Hawelti - daniel.hawelti@arb.ca.gov / 626-450-6149
 - EPA Cleaner Trucks Initiative
 - Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>
 - *See ANPRM references above.*
- **CARB Clean Transportation Incentives Funding Plan**
 - CATI Liaisons should engage in the FY21-22 plan development process - <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-1>
- **CEC Clean Transportation Program Investment Plan**

- CATI Liaisons should engage in the FY21-22 plan development process - <https://ww2.energy.ca.gov/transportation/arfvtp/investmentplans.html>
- **CPUC SB 350 Transportation Electrification Proceeding**
 - CATI Liaisons should contact CPUC and/or investor-owned electric utilities regarding EVSE infrastructure project development in the San Joaquin Valley & South Coast air basins.
 - Main Page - <http://www.cpuc.ca.gov/sb350te/>
 - Contacts:
 - CPUC – Carrie Sisto: cs8@cpuc.ca.gov / 415-703-2872
 - PG&E - Tracy Cheung: tbc4@pge.com
 - SCE - Glenn Chung: Glenn.Chung@sce.com
- **California Sustainable Freight Transport Initiative**
 - CATI Liaisons should continue to track & discuss California Sustainable Freight Action Plan (CSFAP) refinement & implementation processes.
 - CARB Sustainable Freight Transport Initiative - <http://www.arb.ca.gov/gmp/sfti/sfti.htm>
 - CSFAP Main Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning/california-sustainable-freight-action-plan>
- **CATI Agenda Development**
 - Technology Funding Solicitations & Project Selections
 - John Mikulin/EPA follow up w/ relevant agency staff as appropriate to arrange CATI discussions.
 - SB350 Transportation Electrification Proceeding
 - John Mikulin/EPA follow up w/ CPUC staff as appropriate to arrange CATI discussions.
 - Sustainable Freight Planning
 - John Mikulin/EPA follow up w/ relevant agency staff as appropriate to arrange CATI discussions.
 - FAST Act Implementation in California
 - John Mikulin/EPA follow up w/ Caltrans & US DOT staff as appropriate to arrange CATI discussions.
 - West Coast Collaborative Medium & Heavy-Duty Alternative Fuel Infrastructure Corridor Coalition (WCC AFICC)
 - John Mikulin/EPA will arrange CATI discussions as appropriate.
- **Upcoming Events**
 - Transportation Research Board Annual Meeting
 - 1/12-16/20 – Washington, DC
 - Event Page - <http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>
 - CARB Heavy-Duty Demonstration & Deployment Workgroup
 - 1/22/20 – Sacramento, CA
 - Notice - <https://www.californiahvip.org/2020/01/california-air-resources-board-work-group-meeting-scheduled-for-january-22-2020/>
 - Renewable Gas 360
 - 1/22-23/20 – Sacramento, CA
 - Event Page - <https://www.renewablegas360.com>
 - Natural Gas Vehicle Technology Forum
 - 2/4-5/20 – Downey, CA
 - Event Page - <https://cleancities.energy.gov/natural-gas-forum/>
 - Energy Independence Summit
 - 2/10-12/20 – Washington, DC
 - Event Page - <http://tep.sre.events/>
 - Veloz Forum
 - 3/4/19 – Sacramento, CA

- Event Page - <https://www.eventbrite.com/e/electric-transportation-2030-policy-power-plugs-tickets-86429405679>
- CALSTART Policy Summit
 - 3/25/20 – Sacramento, CA
 - Event Page - <http://california2030.org/calstart-summit/>
- West Coast Collaborative Partners Meeting/Green Transportation Summit & Expo
 - 4/13-15/20 – Tacoma, WA
 - Event Page - <http://www.gtsummitexpo.socialenterprises.net/>
- Advanced Clean Transportation Expo
 - 5/11-14/20 – Long Beach, CA
 - Event Page - <https://www.actexpo.com/>
- DOE Hydrogen & Fuel Cells Annual Merit Review
 - 5/19-21/20 – Crystal City, VA
 - Event Page - <https://www.annualmeritreview.energy.gov/>
- DOE Vehicle Technologies Annual Merit Review
 - 6/1-4/20 – Crystal City, VA
 - Event Page - <https://www.energy.gov/eere/vehicles/vehicle-technologies-annual-merit-review>

CATI Liaisons Teleconference Agenda & Notes

Thursday 1/9/20

10:00-11:00AM PST/1:00-2:00PM EST

1) Welcome & Roll Call

Attendees (14)

- CARB – Paul Arneja
- CEC – Kiel Pratt, Micah Woford
- CPUC – Ed Pike
- Caltrans – Joanne McDermott
- SJVAPCD – Kevin Wing
- SCAQMD – Joseph Lopat, Mei Wang
- US DOE
 - FCTO – Pete Devlin
 - ORNL – Greg Moreland
- US EPA
 - OTAQ – Christy Parsons
 - R9 – Ben Machol, Penny McDaniel, John Mikulin

2) CARB Advanced Clean Truck Rulemaking – Paul Arneja/CARB

- a. Overview of CARB’s Advanced Clean Truck (ACT) rulemaking process, which seeks to promote the development and use of zero-emission trucks to help achieve California’s various emission reduction mandates.
 - i. Main Page - <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks>
 - ii. Regulatory Documents - <https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks>
 - iii. Fact Sheet - <https://ww2.arb.ca.gov/sites/default/files/2019-07/190521factsheet.pdf>
- b. Recap of the 12/12/19 ACT Board Hearing.
 - i. CARB Staff Presentation - <https://ww3.arb.ca.gov/board/books/2019/121219/pres19-12-4.pdf>
- c. Discuss next steps & additional stakeholder engagement opportunities related to CARB’s ACT rulemaking.

NOTES

- December 2019 Board hearing
 - o Information hearing & public comment
 - o Second hearing for adoption targeted for May 2020
- Rule Overview
 - o Will assistance CA w/ NAAQS SIP & GHG Scoping Plan objectives
 - o Focused on supporting M/HD ZEV deployment in CA
 - o Reflect current commercial availability of M/HD ZEV products
 - Few major OEMs have commercial products, but many have M/HD ZEV demos underway.
 - Supply base is growing to support ZEV powertrains
 - o Challenges
 - EVSE & H2 infrastructure
 - Workforce training
 - Vehicle cost reduction
 - o Benefits
 - Green jobs
 - Emission reductions
 - Infrastructure upgrades
- Rule Components
 - o M/HD ZEV Sales Requirements
 - OEM compliance schedule 2024-2030
 - 3 categories
 - Class 2b-3: 15% in 2030; challenging from infrastructure perspective due to variable routes, and smaller fleet sizes
 - Class 4-8: 50% in 2030; return to base operations: e.g., delivery vans & refuse trucks
 - Class 7-8 tractors: 15% in 2030; needed for air quality, but challenged by distance & duty cycle requirements.
 - Early action credits 2021-2024
 - Credit trading btw OEMs possible
 - Credit for hybrids based on all-electric range capability
 - OEMs can use these configurations for up to 50% of sales requirement.
 - Coordination between ACT and HD NOx rulemakings ongoing to ensure complementary emission reduction outcomes.
 - o Large Fleet Reporting Requirements
 - Covered fleet operations
 - >100 vehicles
 - >\$50M revenue
 - Government agencies
 - Starting in 2021, large fleets will have to report data to CARB, including:
 - Vehicle use & operation
 - Facility location(s)
 - Vehicle procurement practices, etc.
 - Economic sector
 - Vehicle body types & operation
 - Infrastructure use & needs
 - Objectives
 - Inform design of effective ZEV fleet rules in the future
 - Level playing field for all CA fleets
 - Ensure that companies that own & those that lease are on equal footing

- Identify needed grid upgrades to accommodate for M/HD EVSE
 - Ensure that technologies fits w/ use cases
- December 2019 Board Hearing Recap
 - >100 commenters
 - >100 written comments
 - NGOs want a stronger rule
 - Seek goal >15% ZEVs in-use statewide across all M/HD applications by 2030.
 - OEMs not opposed, but concerned about rule structure.
 - Suggest focusing on key sectors w/ 100% ZEV sales targets (e.g., school bus, delivery & refuse).
 - Fleets concerned w/ reporting requirement due to broad application to organizations in CA.
 - Fearful of violations/fines for nonreporting.
 - Board Direction
 - Staff should evaluate more stringent requirements to encourage larger scale ZEV deployment.
 - Sector based approach may be an avenue to address this.
 - Streamline for reporting requirements.
 - Aggressive goals may be prudent even if feasibility is uncertain.
- Next Steps
 - Fleet rule workshop - February 2020
 - Second Board hearing - May 2020
 - Fleet reporting - April 2021
 - ZEV sales mandates - Model Year 2024

Q&A

- Infrastructure reporting requirement helpful for utility EVSE planning. What type of information will be gathered?
 - CARB understands that infrastructure is a major barrier for ZEV deployment.
 - CPUC SB350 & CEC AB 2127 proceedings will also be helpful in addressing this barrier.
 - <https://www.cpuc.ca.gov/sb350te/>
 - https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2127
 - CA agencies coordinate across CARB, CPUC & CEC efforts related to ZEV infrastructure.
 - Key considerations include: EVSE & H2 standards/types, public/private access, vehicle routes & times of use.
- Double counting of ZEVs for ACT, GHG & NOx rules?
 - CARB HD GHG Phase 2 – Board allowed double counting for ACT related ZEV deployments under GHG. Want to strongly incentivize more OEM investment in M/HD ZEV powertrain development.
 - CARB HD NOx Omnibus – Exploring credit mechanisms for HD ZEVs for NOx compliance. Exact policy treatment still TBD. May incorporate ACT target in baseline assumptions for OEM NOx compliance.
- Credit banking & trading?
 - Will likely allow some credit trading btw segments
 - Class 7-8 tractors will be required in the MY24+ timeframe
 - Need HD ZEV tractors to achieve state's air quality mandates.
- Relationship to San Pedro Bay Ports ZEV deployment goals?
 - No explicit assistance under the ACT proceeding.
 - ACT rule will help w/ M/HD ZEV deployment throughout CA including at port facilities.
 - In 2022, CARB will consider ZEV fleet rules, which may address port operations directly.

3) 2020 CATI Work Plan Development – John Mikulin/EPA

- a. Continue the 2020 CATI work plan development process.

- b. Discuss proposed content & potential revisions to the draft 2020 CATI work plan (*see attached*).
- c. **Submit written comments via email by 2/4/20:** mikulin.john@epa.gov

NOTES

- SJVAPCD Priority Communities
 - o May include Port of Stockton in 2020 listing.
- SCAQMD Marine Vessels
 - o Existing IMO/EPA Tier 3 standards apply to MY2016+ OGV/Category 3 engines.
 - See existing emissions standards for compression ignition marine engines @ <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P100OA0B.pdf>
 - o New international and/or federal standards for this source are unlikely in the near-term.
 - o District interested in exploring Tier 3 OGV deployment project development in 2020.

4) **CATI Liaisons Coordination: Agenda Development & Special Events – All**

- a. Identify discussion topics and/or desired speakers for upcoming CATI Liaisons teleconference agendas (next session scheduled for 2/13/20).
- b. Discuss upcoming events that will be hosted and/or sponsored by CATI partners, as well as opportunities for collaborative engagement in event planning and/or support.
 - i. Transportation Research Board Annual Meeting
 - 1. 1/12-16/20 – Washington, DC
 - 2. Event Page - <http://www.trb.org/AnnualMeeting/AnnualMeeting.aspx>
 - ii. Renewable Gas 360
 - 1. 1/22-23/20 – Sacramento, CA
 - 2. Event Page - <https://www.renewablegas360.com>
 - iii. Natural Gas Vehicle Technology Forum
 - 1. 2/4-5/20 – Downey, CA
 - 2. Event Page - <https://cleancities.energy.gov/natural-gas-forum/>
 - iv. Energy Independence Summit
 - 1. 2/10-12/20 – Washington, DC
 - 2. Event Page - <http://tep.sre.events/>
 - v. West Coast Collaborative Partners Meeting/Green Transportation Summit & Expo
 - 1. 4/13-15/20 – Tacoma, WA
 - 2. Event Page - <http://www.gtsummitexpo.socialenterprises.net/>
 - vi. Advanced Clean Transportation Expo
 - 1. 5/11-14/20 – Long Beach, CA
 - 2. Event Page - <https://www.actexpo.com/>
 - vii. DOE Hydrogen & Fuel Cells Annual Merit Review
 - 1. 5/19-21/20 – Crystal City, VA
 - 2. Event Page - <https://www.annualmeritreview.energy.gov/>
 - viii. DOE Vehicle Technologies Annual Merit Review
 - 1. 6/1-4/20 – Crystal City, VA
 - 2. Event Page - <https://www.energy.gov/eere/vehicles/vehicle-technologies-annual-merit-review>

NOTES

- Item skipped due to time constraint.
- See notes & references above.

5) **CATI Round Robin: Policy, Projects & Funding – All**

- a. Substantive sharing of policy development/implementation efforts, demonstration project results and/or funding opportunities.
 - i. CARB
 - 1. Heavy-Duty On-Road NOx Emissions Standards & Technology Development

- A. Low NOx Rulemaking - <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>
- B. Low NOx Research - <https://www.arb.ca.gov/research/veh-emissions/low-nox/low-nox.htm>
- C. Low NOx Heavy-Duty Engine Technology Assessment Reports 9/29/15
 - 1. Natural Gas Engines - http://www.arb.ca.gov/msprog/tech/techreport/ng_tech_report.pdf
 - 2. Diesel Engines - http://www.arb.ca.gov/msprog/tech/techreport/diesel_tech_report.pdf
- D. CARB Optional Low NOx Certified Heavy-Duty On-Road Engines
 - 1. Main Page - <https://ww3.arb.ca.gov/msprog/onroad/optionnox/optionnox.htm>
 - 2. *See attached for a pre-publication reference including all HD engines currently certified to CARB's optional NOx standards (as of 1/9/20).*
 - a. Publicly accessible version of this reference TBA on CARB's website.
 - b. See CARB's full engine certification database @ <https://ww3.arb.ca.gov/msprog/onroad/cert/cert.php#6>
 - 3. Contact: Daniel Hawelti - daniel.hawelti@arb.ca.gov / 626-450-6149
- 2. Heavy-Duty GHG Phase 2 Emissions Standards
 - A. <https://www.arb.ca.gov/regact/2018/phase2/phase2.htm>
- 3. Heavy-Duty Technology & Fuel Assessments
 - A. <http://www.arb.ca.gov/msprog/tech/report.htm>
 - B. Commercial Tier 4 Harbor Craft Feasibility Study
 - 1. Technical feasibility and costs of installing Tier 4 engines and retrofit exhaust aftertreatment on in-use commercial harbor craft.
 - 2. Report 9/30/19 - <https://ww2.arb.ca.gov/sites/default/files/2019-10/cmafeasibilityreport09302019.pdf>
- 4. State Implementation Strategy
 - A. <http://www.arb.ca.gov/planning/sip/2016sip/2016sip.htm>
- 5. Mobile Source Strategy
 - A. <http://www.arb.ca.gov/planning/sip/2016sip/2016mobsr.htm>
- 6. Climate Change Scoping Plan
 - A. <https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
- 7. Sustainable Freight Transport Initiative
 - A. <http://www.arb.ca.gov/gmp/sfti/sfti.htm>
- 8. Advanced Clean Trucks
 - A. <https://www.arb.ca.gov/msprog/actruck/actruck.htm>
- 9. Innovative Clean Transit
 - A. <https://arb.ca.gov/msprog/ict/ict.htm>
- 10. Innovative Technology Regulation (ITR)
 - A. <http://www.arb.ca.gov/msprog/itr/itr.htm>
- 11. Fuel Cell Electric Vehicle Deployment & Hydrogen Fuel Station Network Development Evaluations
 - A. <https://www.arb.ca.gov/msprog/zevprog/hydrogen/hydrogen.htm>
- 12. Locomotive Emissions Standards & Technology Development
 - A. Main Page - <https://www.arb.ca.gov/railyard/railyard.htm>

- B. Petition Document 4/13/17 -
https://www.arb.ca.gov/railyard/docs/final_locomotive_petition_and_cover_letter_4_13_17.pdf
- C. Freight Locomotive Technology Assessment 11/28/16 -
https://www.arb.ca.gov/msprog/tech/techreport/final_rail_tech_assessment_11282016.pdf
- D. University of Illinois Freight Rail Report 6/22/16 -
https://www.arb.ca.gov/railyard/docs/uoi_rpt_06222016.pdf
- 13. California VW Settlement Investments
 - A. ZEV Investment Plan
 - 1. Main Page - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/vw-zevinvest.htm
 - 2. CARB Cycle 1 Plan Analysis 7/21/17 -
https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/staff_analysis_072117.pdf
 - 3. DRAFT Cycle 2 Plan 10/3/18 -
https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/c2zevplan_100318.pdf
 - a. CARB Cycle 2 Plan Analysis 11/9/18 -
https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/cycle_2_staff_analysis_110918.pdf
 - b. Board Hearing 11/16/18 -
<https://ww2.arb.ca.gov/ma111518>
 - B. NOx Beneficiary Mitigation Plan
 - 1. Main Page - https://www.arb.ca.gov/msprog/vw_info/vsi/vw-mititrust/vw-mititrust.htm
 - 2. Beneficiary Mitigation Plan 4/20/18 -
https://www.arb.ca.gov/msprog/vw_info/vsi/vw-mititrust/meetings/proposed_bmp.pdf
 - 3. Board Hearing 5/25/18 - <https://ww2.arb.ca.gov/ma052518>
 - 4. Staff Presentation 5/25/18 -
<https://www.arb.ca.gov/board/books/2018/052518/18-4-4pres.pdf>
- 14. Clean Transportation Incentive Programs
 - A. Main Page - <http://www.arb.ca.gov/msprog/aqip/aqip.htm>
 - B. Clean Transportation Incentives Funding Plan
 - 1. Proceeding Main Page - <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-1>
 - 2. Funding Plan 9/20/19 -
<https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan.pdf>
 - 3. Heavy-Duty Investment Strategy: Funding Plan Appendix D 9/20/19 - <https://ww2.arb.ca.gov/sites/default/files/2019-09/fy1920fundingplan-appd.pdf>
 - C. On-Road Advanced Technology Demonstration Solicitation
 - 1. \$17M to demonstrate pre-commercial Intelligent Transportation Systems and Connected Trucks, Advanced Engines and Powertrains, and Zero-Emission Short and Regional Haul Trucks. Eligible vehicle types will be limited to Class 7 and Class 8 (GVWR >26,000 lbs.) on-road heavy heavy-duty trucks focused on freight activities.

2. Solicitation closed on 8/16/17
 - a. Main Page - <https://www.arb.ca.gov/msprog/aqip/demo.htm>
 - b. Solicitation Documents - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm#fy1617onroaddemo>
 - c. Contact: Earl Landberg - earl.landberg@arb.ca.gov / 916-323-1384
- D. Off-Road Advanced Technology Demonstration Solicitation
 1. \$17M to demonstrate advanced port equipment, zero-emission cargo handling equipment, zero-emission ground support equipment, and zero-emission freight locomotive equipment. Non-freight categories such as construction equipment, agricultural equipment, and passenger transportation equipment will also be eligible for a smaller portion of the funding, although the focus will be on technologies that are freight enabling.
 2. Solicitation closed on 9/7/17
 - a. Main Page - <https://www.arb.ca.gov/msprog/aqip/demo.htm>
 - b. Solicitation Documents - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm#fy1617offroaddemo>
 - c. Contact: Earl Landberg - earl.landberg@arb.ca.gov / 916-323-1384
- E. Zero & Near Zero-Emission Freight Facilities Solicitation
 1. \$150M statewide; up to \$50M/project to deploy emission-reduction technologies used in freight movement & facilities. Eligible vehicles and equipment types include on-road trucks, cargo handling equipment, marine vessels, locomotives, and others including supporting infrastructure. Freight facility improvements are also eligible and include: preferential queuing, renewable energy generation and storage, and education and outreach efforts that highlight the environmental and economic benefits of transitioning to a zero-emission freight facility.
 2. Solicitation closed on 7/19/18 - <https://www.arb.ca.gov/msprog/aqip/solicitations.htm>
 3. Awards announced 9/26/18 - <https://ww2.arb.ca.gov/news/carb-announces-more-200-million-new-funding-clean-freight-transportation>

NOTES

- Item skipped due to time constraint.
- See notes & references above.

ii. CEC

1. Main Page: <https://www.energy.ca.gov/>
 - A. Toward a Clean Energy Future video - <https://www.youtube.com/watch?v=FUWwxceHtCk&feature=youtu.be&app=desktop>
 - B. California Vehicle-Grid Integration Roadmap update, a multi-agency and stakeholder effort- <https://www.energy.ca.gov/transportation/vehicle-grid-integration/>

2. Empower Innovation Network
 - A. Initiative in partnership with clean technology accelerators, fellowship programs, nonprofits, and private partners.
 - B. Managed by Navigant Consulting, Inc. and iCatalysts on behalf of CEC.
 - C. Program strives to accelerate cleantech deployment by providing easy access to funding opportunities, curated resources, and connections to people and organizations working towards a clean economy for all.
 - D. <https://www.empowerinnovation.net/>
3. Integrated Energy Policy Report (IEPR)
 - A. Draft 2019 IEPR released on 11/8/19
 1. Proceeding Main Page - https://ww2.energy.ca.gov/2019_energy_policy/
 2. Draft IEPR Document 11/8/19 - <https://efiling.energy.ca.gov/getdocument.aspx?tn=230539>
4. CEC Divisions & Highlighted Programs:
 - A. Energy Assessments Division: <https://www.energy.ca.gov/assessments/>
 1. Integrated Energy Policy Report (IEPR): <https://www.energy.ca.gov/energypolicy/>
 - B. Energy Efficiency Programs: <https://www.energy.ca.gov/efficiency/>
 1. Rebates & Incentives: <https://www.energyupgrade.ca.org/home-energy-efficiency/rebates-incentives/>
 - C. Funding: <https://www.energy.ca.gov/contracts/>
 1. More Funding Information: https://www.energy.ca.gov/newnav/funding_links.html
 - D. Power Plants: <https://www.energy.ca.gov/sitingcases/alphabetical.html>
 1. Status of All Projects: https://www.energy.ca.gov/sitingcases/all_projects.html
 - E. Renewable Energy Programs: https://www.energy.ca.gov/renewables/renewable_links.html
 1. Clean Energy & Pollution Reduction Act SB 350 Overview: <https://www.energy.ca.gov/sb350/>
 2. Electric Program Investment Charge (EPIC): <https://www.energy.ca.gov/research/epic/>
 - F. Energy Research & Development: <https://www.energy.ca.gov/research/>
 1. Funding Opportunities for Energy Research & Development: https://www.energy.ca.gov/research/funding_opportunities.html
 - G. Fuels & Transportation Division: <https://www.energy.ca.gov/programs-and-topics/topics/transportation>
 1. Solicitations for Transportation Area Programs: <https://www.energy.ca.gov/contracts/transportation.html>
 2. School Bus Replacement Program: <https://www.energy.ca.gov/transportation/schoolbus/>
 - a. \$78.7M for school bus replacement (\leq 10 buses/award), \$13M for EVSE infrastructure (\leq \$60k/award), and \$2.4M for CNG infrastructure (\leq \$500k/award).
 - b. Solicitation Documents (closed) - <http://www.energy.ca.gov/contracts/transportation.html#GFO-17-607>
 - c. Notice of Proposed Awards 2/6/19 - https://www.energy.ca.gov/contracts/GFO-17-607_revised_NOPA.pdf

3. Clean Transportation Program Proceedings:
<https://www.energy.ca.gov/programs-and-topics/programs/clean-transportation-program>
 - a. CTP Investment Plan
 1. Proceeding Main Page -
<https://ww2.energy.ca.gov/transportation/arfvtp/investmentplans.html>
 - b. Advanced Freight Vehicle Infrastructure Deployment
 1. \$22.26M statewide; \$1-8M/project to support infrastructure deployment for plug-in electric & hydrogen fuel cell electric Class 3-8 on-highway freight vehicles, as well as related Intelligent Transportation System (ITS) roadside infrastructure.
 2. Solicitation Documents (closed) -
<http://www.energy.ca.gov/contracts/transportation.html#GFO-17-603>
 - c. Renewable Hydrogen Transportation Fuel Production Facilities & Systems
 1. \$3.97M statewide to support projects that will design, engineer, construct, install, test, operate & maintain 100% renewable hydrogen facilities in California.
 2. Solicitation Documents (closed) -
<http://www.energy.ca.gov/contracts/transportation.html#GFO-17-602>
 3. Notice of Proposed Awards 10/8/18 -
http://www.energy.ca.gov/contracts/GFO-17-602_NOPA_revised.pdf
 - d. Demonstration-Scale Biofuels Production Facilities
 1. \$6M statewide; <\$3M/project to develop the first demonstration-scale biofuel production facility at a site specific location that proves a technology or process in the field, develops an eligible biofuel product, and develops a market for the technology.
 2. Solicitation Documents (closed) -
<https://www.energy.ca.gov/contracts/transportation.html#GFO-18-602>
 - e. Community-Scale and Commercial-Scale Advanced Biofuels Production Facilities
 1. \$16.9M statewide; <\$5M/project to support development of low carbon biofuel production projects at new and existing biofuel production facilities; existing biofuel production facilities must expand or modify facilities to increase production capacity.
 2. Solicitation Documents (closed) -
<https://www.energy.ca.gov/contracts/transportation.html#GFO-18-601>
 - f. Vehicle Technology Outreach, Education, and Collaborative Planning for California's Central Valley

1. \$1M available to support new outreach, education, and collaborative planning activities that will accelerate the adoption of alternative fuels and advanced vehicle technologies in the counties of: Fresno, Kern, Kings, Madera, Mariposa, Merced, San Benito, San Joaquin, Stanislaus, Tulare, and Tuolumne.
2. Solicitation Documents (closed) - <http://www.energy.ca.gov/contracts/transportation.html#GFO-18-603>
3. Revised Notice of Proposed Award 4/11/19 - https://www.energy.ca.gov/contracts/GFO-18-603_Revised_NOPA.pdf
- g. AB2127 EVSE Assessment Proceeding
 1. Workshops & Meetings - https://www.energy.ca.gov/2019_energypolicy/documents/index.html
 2. Docket Log - <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-IEPR-04>
- h. ZEV & Infrastructure Manufacturing Notice of Proposed Award 9/23/19 = \$4.9M - https://www.energy.ca.gov/sites/default/files/2019-09/GFO-18-605_NOPA_Revised.pdf

NOTES

- Item skipped due to time constraint.
- See notes & references above.

iii. CPUC

1. SB 350 Transportation Electrification Proceeding
 - A. Main Page - <http://www.cpuc.ca.gov/sb350te/>
 - B. Summary of Approved Standard Review Projects 5/31/18 - <http://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442457607>
 - C. Summary of Approved Priority Review Projects 1/11/18 - www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442455977
 - D. SB 350 (De Leon, 2015) - http://leginfo.legislature.ca.gov/faces/billStatusClient.xhtml?bill_id=201520160SB350
 - E. Contacts
 1. Carrie Sisto/CPUC: Carolyn.Sisto@cpuc.ca.gov / 415-703-2872
 2. Tracy Cheung/PG&E: tbc4@pge.com
 3. Glenn Chung/SCE: Glenn.Chung@sce.com
 - F. EVSE Rates & Infrastructure Rulemaking
 1. Develop rates and infrastructure for vehicle electrification and a comprehensive Transportation Electrification Framework (TEF) to guide the Commission's role in the electrification of California's transportation sector (R.13-11-007).
 2. ZEV Rate Design Forum 6/7-8/18 - <http://www.cpuc.ca.gov/energy/electricrates/>

3. Rule Language (33 pages) -
<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M250/K03/0/250030021.PDF>

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- Item skipped due to time constraint.
- See notes & references above.

iv. SJVAPCD

1. Medium-Duty Truck Replacement Program = Up to \$40k/Class 5-6 truck replacement
 - A. Main Page - <http://valleyair.org/grants/onroadtrucks.htm>
 - B. Press Release 9/30/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-Truck-Class-5-6-Grant-program.pdf
2. Technology Advancement Program (TAP)
 - A. Main Page - <http://valleyair.org/grants/technologyadvancement.htm>
 - B. Project Interest Form/Open Solicitation
 1. TAP has shifted from a formal RFP process to a one-page project interest form, which will help streamlining the District's identification of prospective demonstration project development opportunities.
 2. **[Direct potential clean air technology demonstration partners to SJVAPCD's TAP webpage:](http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf)**
<http://valleyair.org/grants/documents/technologyadvancement/interest-form.pdf>
 - C. Past Project Events
 1. Verwey Farms Project Press Release 10/7/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-TAP-MPC-event-100115.pdf
 2. TransPower-IKEA Project Press Release 10/29/15 -
https://www.valleyair.org/recent_news/Media_releases/2015/PR-TAP-IKEA-Event-102915.pdf
 3. eNow-Challenge Dairy Project Press Release 10/11/17 -
http://www.valleyair.org/recent_news/Media_releases/2017/PR_Challenge_Dairy_Tap_10-11-17.pdf
 - D. Project Selections 3/19/15 -
http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2015/March/final/12.pdf
3. Petition Requesting that EPA Adopt New National Standards for On- Road Heavy-Duty Trucks and Locomotives under Federal Jurisdiction
 - A. SJVAPCD Press Release & Petition Document 6/22/16 -
http://www.valleyair.org/recent_news/Media_releases/2016/PR-District-Petitions-Federal-Government-06-22-16.pdf

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- Item skipped due to time constraint.
- See notes & references above.

v. SCAQMD

1. Technology Advancement Office (TAO)
 - A. TAO Main Page - <http://www.aqmd.gov/home/library/technology-research>

2. Petition to EPA for Rulemaking to Adopt Ultra-Low NOx Exhaust Emission Standards for On-Road Heavy-Duty Trucks & Engines
 - A. Petition Document 6/3/16 - http://4cleanair.org/sites/default/files/resources/HD_Ultra-Low-NOx_Petition_to_EPA-060316.pdf
 - B. Petition Appendix 6/3/16 - http://4cleanair.org/sites/default/files/resources/Petition_Attachments-Ultra-Low-NOx_Petition_to_EPA-060316_0.pdf
 - C. 12/20/16 EPA response to the petitions for revised NOx standards for heavy-duty on-highway vehicles & engines.
 1. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/petitions-revised-nox-standards-highway-heavy-duty>
 2. Memorandum - <https://www.epa.gov/sites/production/files/2016-12/documents/nox-memorandum-nox-petition-response-2016-12-20.pdf>

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- Item skipped due to time constraint.
- See notes & references above.

vi. EPA

1. CATI 2020 Work Plan
 - A. See draft 2020 Work Plan attached.
2. EPA Cleaner Truck Initiative
 - A. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>
 1. Press Release 11/13/18 - <https://www.epa.gov/newsreleases/epa-acting-administrator-wheeler-launches-cleaner-trucks-initiative>
 2. OMB OIRA Webpage - <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201910&RIN=2060-AU41>
 - B. **Advanced Notice of Proposed Rulemaking (ANPRM) – Comment deadline TBA, 30 days from docket posting in Federal Register**
 1. Press Release 1/6/20 - <https://www.epa.gov/newsreleases/epa-jumpstarts-administrator-wheelers-cleaner-trucks-initiative>
 2. Fact Sheet 1/6/20 - <https://www.epa.gov/sites/production/files/2020-01/documents/420f20003.pdf>
 3. ANPRM Pre-Publication Version 1/6/20 – <https://www.epa.gov/sites/production/files/2020-01/documents/cleaner-trucks-initiative-anpr-2020-01-06.pdf>
 4. Docket ID #EPA-HQ-OAR-2019-0055 – Docket folder TBA @ <https://www.regulations.gov/>
3. Targeted Airshed Grant Program
 - A. FY19 RFA announced 11/26/19 = \$50.3M nationwide; ≤\$10M/application to assist state, local and/or tribal air pollution control agencies in developing plans and implementing projects to reduce air pollution in the nation's most impacted airsheds.
 - B. **Applications due by 8:59PM PST on 2/14/20**
 1. Main Page - <https://www.epa.gov/grants/2019-targeted-airshed-grant-program>

2. RFA Document - https://www.epa.gov/sites/production/files/2019-11/documents/fy19_tag_rfa_final11-26-19_0.pdf
- C. Contact Trina Martynowicz with questions regarding TAG projects in California (martynowicz.trina@epa.gov / 415-972-3474)
4. DERA National Clean Diesel Funding Assistance Program
 - A. FY20 RFA announced 12/9/19 = ~\$44M nationwide; ≤\$4M/application in Region 9 for heavy-duty diesel replacement, repower and retrofit projects.
 - B. Applications due by 8:59PM PST on 2/26/20**
 1. Main Page - <https://www.epa.gov/cleandiesel/clean-diesel-national-grants>
 2. FAQ - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-qa.pdf>
 3. Applicant Webinar Presentation - <https://www.epa.gov/sites/production/files/2019-12/documents/fy20-dera-national-rfa-webinar-2019-12-11.pdf>
 4. RFA Document - <https://www.epa.gov/sites/production/files/2019-12/documents/2020-dera-national-grants-competition-12-2019.pdf>
 - C. West Coast Collaborative (WCC): DERA Projects in California
 1. FY19 awards announced 10/28/19 = \$11.6M to retrofit, repower, or replace heavy-duty diesel engines & equipment in California - <https://www.epa.gov/newsreleases/us-epa-awards-more-116-million-reduce-diesel-emissions-california>
 2. FY18 awards announced 10/22/18 = \$9.6M to retrofit, repower, or replace heavy-duty diesel engines & equipment in California - <https://www.epa.gov/newsreleases/us-epa-awards-96-million-grants-reduce-harmful-diesel-emissions-california>
 3. Past WCC Project Fact Sheets - <https://westcoastcollaborative.org/projects-list.htm>
 - D. Contact Penny McDaniel with questions regarding DERA National grant projects in Region 9 (mcdaniel.penelope@epa.gov / 415-947-4203).
5. EPA Cleaner Truck Initiative
 - A. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative>
 - B. Press Release 11/13/18 - <https://www.epa.gov/newsreleases/epa-acting-administrator-wheeler-launches-cleaner-trucks-initiative>
 - C. Advanced Notice of Proposed Rulemaking (ANPRM) – *TBA Winter 2020*
 1. OMB OIRA Webpage - <https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=201910&RIN=2060-AU41>
6. West Coast Collaborative Medium & Heavy-Duty Alternative Fuel Infrastructure Corridor Coalition (WCC AFICC)
 - A. Strategic development plan highlighting needed/desired M/HD alternative fuel infrastructure investments in California, Oregon and/or Washington - *TBA in Winter 2020*
 - B. Project Main Page - <https://westcoastcollaborative.org/workgroup/wkgrp-fuels.htm#webinar>
7. CATI Grants
 - A. SJVAPCD
 1. FY19 = \$500,000 to support demonstration of utilizing chipped agricultural organic waste for soil incorporation and/or surface

application as a lower emission alternative to open burning of these materials.

2. FY18 = \$500,000 to support demonstration of: 1) plug-in hybrid electric heavy-duty truck with a compressed natural gas (CNG) microturbine range extender; 2) photovoltaic battery-electric truck refrigeration system; 3) plug-in hybrid medium-duty truck with a CNG internal combustion engine range extender; and 4) low NOx gradual oxidizer for a combined heat & power unit at an ethanol production facility.
3. FY17 = \$500,000 to support demonstration of: 1) emissions control systems for underfired charbroilers; 2) electrified refrigeration units using solar, battery, and cold plate technologies; 3) plug-in electric/compressed natural gas hybrid medium-duty truck; and 4) electrified dairy feed mixing station.
4. FY16 = \$500,000 to support demonstration of: 1) emissions control systems for underfired charbroilers; 2) electrified agricultural sprayers; 3) battery-electric yard trucks; as well as to deploy: 1) low emission school buses; and 2) electric agricultural water pumps.
 - a. SJVAPCD TAP Project Selection Board Item 3/19/15 - http://www.valleyair.org/Board_meetings/GB/agenda_minutes/Agenda/2015/March/final/12.pdf

B. SCAQMD

1. FY18-19 = \$1,000,000 to support demonstration of medium & heavy-duty battery-electric freight trucks.
 - a. SCAQMD Board Item 7/12/19: FY19 CATI M/HD BEV Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-jul12-003.pdf>
 - b. SCAQMD Board Item 7/6/18: FY18 CATI M/HD BEV Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-july6-004.pdf>
 - c. SCAQMD Press Release 7/6/18 - <http://www.aqmd.gov/docs/default-source/news-archive/2018/scaqmd-and-daimler-trucks-partnership.pdf>
2. FY17 = \$500,000 to support: 1) demonstration of a battery-electric switcher locomotive; and 2) assessment of aftertreatment technologies for ultra-low NOx emission heavy-duty on-highway diesel engines.
 - a. SCAQMD Board Item 7/7/17: FY17 CATI Locomotive Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-jul7-003.pdf?sfvrsn=5>
 - b. SCAQMD Board Item 4/7/17: FY17 CATI HDV Engine Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-apr7-003.pdf?sfvrsn=4>
3. FY16 = \$500,000 to support ultra-low emission natural gas switcher locomotive demonstration.

- a. SCAQMD Board Item 6/3/16: FY16 CATI Project Approval - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2016/2016-jun3-002.pdf?sfvrsn=7>
8. DERA School Bus Rebate Program
 - A. FY19 RFA closed on 10/30/19 = \$10M nationwide; \$15-20k/bus for pre-2007 school bus replacements.
 1. Main Page - <https://www.epa.gov/cleandiesel/clean-diesel-rebates>
 2. Application - <https://www.epa.gov/sites/production/files/2019-10/documents/fy19-dera-school-bus-rebate-application.pdf>
 3. FAQ - <https://www.epa.gov/sites/production/files/2019-09/documents/2019-dera-rebates-faq-2019-09-30.pdf>
 4. Program Guide - <https://www.epa.gov/sites/production/files/2019-09/documents/420b19050.pdf>
 - B. Contact John Mikulin with questions regarding DERA rebate project development in California (mikulin.john@epa.gov / 415-972-3956).
9. DERA Tribal Clean Diesel Funding Assistance Program
 - A. FY18 RFA closed 4/3/19 = \$4M nationwide; ≤\$800k/application for tribal heavy-duty diesel replacement, repower and retrofit projects.
 1. Main Page - <http://www.epa.gov/cleandiesel/clean-diesel-tribal-grants>
 2. FAQ - <https://www.epa.gov/sites/production/files/2018-07/documents/fy18-tribal-faq-07-02-18.pdf>
 3. RFA Document - <https://www.epa.gov/sites/production/files/2018-08/documents/tribal-clean-diesel-funding-assistance-program-fy-2018-rfa.pdf>
 - B. Past DERA Tribal awards - <http://www.epa.gov/cleandiesel/clean-diesel-tribal-grants#projects>
 - C. Contact Francisco Donez with questions regarding DERA Tribal projects in California (donez.francisco@epa.gov / 213-244-1834)
10. DERA State Clean Diesel Program
 - A. Main Page – <https://www.epa.gov/cleandiesel/clean-diesel-state-allocations>
 - B. Contact Dana Mayfield with questions regarding DERA State projects in California (mayfield.dana@epa.gov / 415-972-3008).
11. Clean Air Excellence Awards
 - A. Main Page - <https://www.epa.gov/caaac/clean-air-excellence-awards>
 - B. Through this program, EPA recognizes and honors individuals and organizations whose efforts have helped to make progress in achieving cleaner air. The award recipients are selected for developing innovative, replicable, and sustainable programs; serving as pioneers in their fields; and improving air quality either directly or indirectly through reduced emissions of criteria pollutants, hazardous air pollutants, and/or greenhouse gases.
 - C. The five awards categories are: (1) Clean Air Technology; (2) Community Action; (3) Education/Outreach (4) State/Tribal/Local Air Quality Policy Innovations; and (5) Transportation Efficiency Innovations. In addition, the Clean Air Excellence Award Program will recognize two special award categories: (1) the Gregg Cooke Visionary Program Award, honoring a former EPA Regional Administrator, is given to the air quality project or program that successfully blends two or more of the existing

- awards categories; and (2) the Thomas W. Zosel Outstanding Individual Achievement Award, honoring a former member of the CAAAC and environmental leader at 3M, recognizes one individual for their outstanding achievement, leadership, and lasting commitment to promote clean air and achieve better air quality.
- D. Awards announced 11/7/19 - <https://www.epa.gov/newsreleases/clean-air-projects-win-epa-recognition>
12. Volkswagen Diesel Settlement Funding
- A. Funding
1. NOx Mitigation = \$2.7B nationwide; \$423M in CA
 2. ZEV Investment = \$2B nationwide; \$800M in CA
- B. EPA Main Page - <https://www.epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement>
- C. CARB Main Page - https://www.arb.ca.gov/msprog/vw_info/vw-diesel-info/vw-diesel-info.htm
- D. VW Settlement Program Page - <https://www.vwcourtsettlement.com/en/>
- E. VW ZEV Investment Plan Page - <https://www.electrifyamerica.com/our-plan>
13. EPA/NHTSA Heavy-Duty GHG Phase 2 Standards
- A. Final rule announced 8/16/16. Establishes GHG emission and fuel economy standards for model year 2021-2027 medium & heavy-duty on-highway vehicles.
1. Main Page – <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-commercial-trucks>
14. EPA/NHTSA Light-Duty GHG & CAFE Proposed Rule for Model Years 2021-2026
- A. EPA Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/safer-affordable-fuel-efficient-safe-vehicles-proposed>
15. EPA Renewable Fuel Standard (RFS)
- A. Main Page - <https://www.epa.gov/renewable-fuel-standard-program>
16. EPA Aircraft GHG Rulemaking
- A. Main Page - <https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-aircraft>
- B. ICAO Carbon Offsetting & Reduction Scheme for International Aviation (CORSIA)
1. Press Release 10/6/16 - <http://www.icao.int/Newsroom/Pages/Historic-agreement-reached-to-mitigate-international-aviation-emissions.aspx>
 2. CORSIA Main Page - <http://www.icao.int/environmental-protection/Pages/market-based-measures.aspx>
- C. Endangerment Finding finalized 8/15/16
1. Fact Sheet – <https://www3.epa.gov/otaq/documents/aviation/420f16036.pdf>
 2. Final Rule - <https://www.gpo.gov/fdsys/pkg/FR-2016-08-15/pdf/2016-18399.pdf>
- D. Advance Notice of Proposed Rulemaking (ANPR) 6/10/15 - Provides information on the process for setting international CO2 emissions standards for aircraft at the International Civil Aviation Organization (ICAO), and describes and seeks input on issues related to setting an international CO2 standard for aircraft, and the potential use of section

231 of the Clean Air Act to adopt a corresponding aircraft engine standard domestically.

1. Fact Sheet -

<https://nepis.epa.gov/Exe/ZyPDF.cgi/P100MLPU.PDF?Dockey=P100MLPU.PDF>

17. EPA Ground-Level Ozone NAAQS Update

- A. EPA strengthened the NAAQS for ground-level ozone to 70 ppb on 10/1/15 (vs. 75 ppb 2008 standard).

1. Main Page - <https://www.epa.gov/ozone-pollution/2015-national-ambient-air-quality-standards-naaqs-ozone>
2. Overview Factsheet - https://www.epa.gov/sites/production/files/2015-10/documents/overview_of_2015_rule.pdf

NOTES

- See notes & references above.

vii. US DOE

1. Vehicle Technologies Office (VTO)

- A. Main Page - <http://energy.gov/eere/vehicles/vehicle-technologies-office>

B. Bioenergy Research & Development

1. Selections announces 10/1/19 = \$73M nationwide to support 35 projects that will help reduce the price of drop-in biofuels, lower the cost of biopower, and enable high-value products from biomass, or waste resources.
2. Press Release 10/1/19 - <https://www.energy.gov/articles/department-energy-announces-73-million-35-projects-bioenergy-research-and-development-0>
3. Selected Projects - <https://www.energy.gov/eere/bioenergy/bioenergy-technologies-office-fiscal-year-2019-funding-opportunity-announcement-0>

C. Battery Recycling Prize

1. Selections announced 9/25/19 = \$1M nationwide; 15 awards for \$67000 each to support projects focused on cost-effective recycling processes to reclaim and recycle critical materials (e.g., cobalt and lithium) from spent lithium-ion batteries.
2. Press Release 9/25/19 - <https://www.energy.gov/eere/articles/energy-department-announces-phase-1-winners-battery-recycling-prize>

D. Heavy-Duty Truck & Off-Road Vehicle Funding Opportunity Announcement

1. \$50M nationwide to support innovative research for heavy-duty truck, off-road vehicle, and related fuel technologies. Priority research topics include: 1) gaseous fuels (natural gas, biopower & hydrogen); 2) heavy-duty freight electrification; 3) heavy-duty hydrogen infrastructure; 4) heavy-duty hydrogen fuel cells; 5) energy efficient off-road vehicles.
2. Selections announced 7/29/19
 - a. Press Release - <https://www.energy.gov/articles/department-energy-announces-50-million-commercial-truck-road-vehicle-and-gaseous-fuels-0>

- b. Selected Projects - https://www.energy.gov/sites/prod/files/2019/07/f65/FY19%20MD-HD%20Truck%20selections%20table_0.pdf
- E. Advanced Vehicle Technologies Research Funding Opportunity Announcement
 - 1. \$59M nationwide to support research in: 1) advanced batteries and electric drive systems, 2) energy efficient mobility systems, 3) materials for more efficient powertrains, 4) co-optimized advanced engine and fuel technologies, and 5) alternative fuels and new mobility options.
 - 2. Selections announced 8/16/19
 - a. Press Release - <https://www.energy.gov/articles/doe-announces-59-million-and-43-projects-accelerate-advanced-vehicle-technologies-research>
 - b. Project List - https://www.energy.gov/sites/prod/files/2019/08/f65/FY19%20VTO%20selections%20table-for%20release_updated_0.pdf
- F. Natural Gas Engine and Vehicles Research and Development
 - 1. 9 projects totaling \$18M to support: 1) reducing the total cost of ownership, 2) increasing vehicle efficiency, 3) decreasing local air pollution, and 4) advancing technology development to increase the use of more affordable medium and heavy-duty natural gas engines and vehicles.
 - 2. Selections announced 3/6/19 - <https://www.nrel.gov/news/press/2019/nrel-announces-new-projects-to-advance-medium-and-heavy-duty-natural-gas-vehicle-technologies.html>
- G. Advanced Vehicle Technologies Research
 - 1. 42 projects totaling \$80M to support advanced vehicle technologies that can enable more affordable mobility, strengthen domestic energy security, reduce our dependence on foreign sources of critical materials, and enhance U.S. economic growth. This work supports DOE's goal to invest in early-stage research of transportation technologies that can give families and businesses greater choice in how they meet their mobility needs.
 - 2. Selections announced 9/5/18
 - a. Press Release - <https://www.energy.gov/articles/department-energy-announces-80-million-investment-advanced-vehicle-technologies-research>
 - b. Project List - https://www.energy.gov/sites/prod/files/2018/09/f55/FY18_DE-FOA-0001919_SelectionTable.pdf
- H. Off-Road Vehicle Fluid-Power Systems Research Funding Opportunity Announcement
 - 1. \$3M nationwide; \$1-1.5M/project for early-stage, high-risk research related to off-road vehicle fluid-power systems. Opportunities exist to improve the efficiency of off-road vehicle fluid-power systems, including construction, mining, and farm equipment. Projects competitively selected through this funding

- opportunity will complement additional early-stage research on mobile fluid-power systems at DOE national laboratories.
- a. Mobile Fluid Power Workshop 9/12/17 - <https://www.nrel.gov/transportation/mobile-fluid-power-workshop.html>
 2. Selections announced 3/6/18 - <https://www.energy.gov/eere/articles/department-energy-announces-12-million-early-stage-research-natural-gas-engines-and>
- I. Batteries & Electrification to Enable Extreme Fast Charging Funding Opportunity Announcement
1. \$15M nationwide; \$500k-\$5M/project to encourage the development of plug-in electric vehicle systems that can recharge rapidly at high power levels, decreasing charge time to 15 minutes or less. Advanced battery projects will focus on early-stage research of battery cells that can enable extreme fast charging, while electrification projects will support the development and verification of electric drive systems and infrastructure for extreme fast charging (400 kW).
 - a. Fast Charging Gap Assessment 10/2/17 - https://energy.gov/sites/prod/files/2017/10/f38/XFC%20Technology%20Gap%20Assessment%20Report_FINAL_10202017.pdf
 2. Selections announced 9/5/18 - <https://www.energy.gov/articles/department-energy-announces-80-million-investment-advanced-vehicle-technologies-research>
- J. Medium/Heavy-Duty On-Road Natural Gas Engine Research & Development Funding Opportunity Announcement
1. \$4M nationwide; \$1-2M/project to enable natural gas engines that can cost-effectively achieve diesel-like efficiency while meeting current and future emissions standards. A complete engine development project is outside the scope of this effort, but engine subsystem research must have a plausible pathway to higher engine efficiency. Emission control technology projects addressing criteria pollutants and GHGs are desired, with consideration that future standards are likely to influence NGV technology adoption. Potential technologies include (but are not limited to) combustion strategies, engine subsystems, emission control systems, fuel systems, and controls.
 - a. Natural Gas Vehicle Research Workshop 7/25/17 - <https://www.nrel.gov/transportation/ngv-research-workshop.html>
 2. Selections announced 3/6/18 - <https://www.energy.gov/eere/articles/department-energy-announces-12-million-early-stage-research-natural-gas-engines-and>
- K. Energy Efficient Transportation & Infrastructure Systems Funding Opportunity Announcement
1. \$19.4M funding solicitation for: 1) Advanced Technology Battery Cell Development; 2) Battery500 Seedling Projects; 3) Development of Electric Traction Drive Systems; 4) Integrated

- Computational Materials Engineering Development of Low Cost Carbon Fiber for Lightweight Vehicles; 5) Emission Control Strategies for Advanced Combustion Engines; and 6) Open Topics.
2. Selections announced 7/12/17
 - a. Press Release - <https://energy.gov/eere/articles/energy-department-announces-194-million-investment-advanced-vehicle-technologies>
 - b. Selections Summary - https://energy.gov/sites/prod/files/2017/07/f35/FY17_DE-FOA-0001629_VTO_Program_Wide.pdf
 - L. Alternative Fuel Vehicle Deployment Funding Opportunity Announcement
 1. \$13.4M funding solicitation for: 1) Alternative Fuel Vehicle Community Partner Projects; and 2) Living Labs: Energy Efficient Mobility Systems Projects.
 2. Selections announced 8/22/17 - <https://www.energy.gov/eere/articles/energy-department-announces-134-million-investment-community-based-advanced>
 2. Fuel Cell Technologies Office (FCTO)
 - A. Main Page - <http://energy.gov/eere/fuelcells/fuel-cell-technologies-office>
 - B. H2@Scale New Markets Funding Opportunity Announcement Notice of Intent
 1. DOE FCTO intends to issue a funding opportunity announcement in January 2020 to support transformational R&D and innovative concepts for expanding hydrogen market opportunities and solutions.
 2. Areas of interest will include: 1) Electrolyzer Manufacturing; 2) Carbon Fiber for Compressed Storage Tanks; 3) Heavy-Duty Fuel Cells; 4) HySteel - hydrogen in steel manufacturing/iron refining; 5) New Markets Demonstrations; and 6) Training and Workforce Development.
 3. Announcement 12/16/19 - <https://www.energy.gov/eere/fuelcells/articles/energy-department-announces-notice-intent-issue-funding-opportunity-0>
 4. EERE Exchange Posting - <https://eere-exchange.energy.gov/Default.aspx#FoaIde84bbd2f-e759-4a66-979d-bd4f82bdc1e4>
 5. FOA NOI Document - <https://eere-exchange.energy.gov/FileContent.aspx?FileID=587fc7c1-6514-431b-a09b-fa622e4c8ef3>
 - C. H2@Scale Funding Opportunity Announcement
 1. \$40M nationwide to support research on advance hydrogen storage and infrastructure technologies, and innovative hydrogen production and utilization concepts including grid resiliency.
 2. Selections announced 8/15/19
 - a. Press Release - <https://www.energy.gov/articles/departments-energy-announces-40-million-funding-29-projects-advance-h2scale>
 - b. Project List - <https://www.energy.gov/sites/prod/files/2019/08/f65/fcto-fy19-h2-at-scale-foa-selections.pdf>

- D. Multi-Sector Uses of Hydrogen Request for Information
 - 1. FCTO seeks feedback on opportunities to enable high volume production and multi-sector use of hydrogen.
 - 2. RFI closed on 10/31/18
 - a. Press Release 8/1/18 - <https://www.energy.gov/eere/articles/energy-department-releases-request-information-multi-sector-uses-hydrogen>
 - b. EERE Exchange Posting - <https://eere-exchange.energy.gov/Default.aspx#FoaId1ddb34fb-34d0-4b46-a616-2230beafb6b6>
- E. Hydrogen & Fuel Cell Technologies FOA Project Selections
 - 1. 28 projects totaling \$38M to support early-stage research and development of innovative hydrogen and fuel cell technologies. This work also supports the DOE's H2@Scale initiative to produce and use hydrogen across multiple energy sectors.
 - 2. Selections announced 8/14/18 - <https://www.energy.gov/articles/secretary-perry-announces-38-million-new-projects-support-innovative-hydrogen-and-fuel-cell>
 - 3. Project List - https://www.energy.gov/sites/prod/files/2018/08/f54/fcto-fy18-foa-selections_0.pdf
- 3. US Army TARDEC MOU 10/9/18 - <https://www.energy.gov/eere/articles/energy-department-and-army-tardec-collaborate-hydrogen-and-fuel-cells-military-use>
 - A. DOD Partnership Video - https://www.youtube.com/watch?v=oYYSHxsxGUE&feature=youtu.be&fbclid=IwAR32XEJRlmmLC-tux7MUR3SQ1t0GQRcqyK_AT_186YIdi_oLlyQwhv92nso
- 4. Advanced Manufacturing Office
 - A. Main Page - <https://www.energy.gov/eere/amo/advanced-manufacturing-office>
- 5. Advanced Research Projects Agency-Energy (ARPA-E)
 - A. Main Page - <https://arpa-e.energy.gov/>
- 6. Bioenergy Research & Development
 - A. 36 projects totaling \$80 million to support early-stage bioenergy research and development (R&D). These projects will enable cost-competitive, drop-in renewable hydrocarbon fuels, bio-based products, and power from non-food biomass and waste feedstocks. This work supports DOE's goal of reducing the cost of bio-based drop-in fuels to \$3/gallon by 2022 to continue to provide consumers with affordable, reliable transportation energy choices.
 - B. Selections announced 9/4/18 - <https://www.energy.gov/articles/department-energy-announces-36-projects-bioenergy-research-and-development>
 - C. Project List - <https://www.energy.gov/eere/bioenergy/bioenergy-technologies-office-fiscal-year-2018-funding-opportunity-announcement>

NOTES

- DOE FCTO Announcements
 - o Class 8 long-haul FCEV technical targets established - https://www.hydrogen.energy.gov/pdfs/19006_hydrogen_class8_long_haul_truck_targets.pdf

- H2@Scale New Markets R&D FOA will be released soon; see NOI references above and @ <https://www.energy.gov/eere/fuelcells/articles/energy-department-announces-notice-intent-issue-funding-opportunity-0>
- DOD/US ACE joint FOA to develop demonstration project for HD FCEV disaster relief truck – Additional info TBA by DOE

viii. US DOT & Caltrans

1. California Freight Mobility Plan

A. The CFMP governs California's planning activities and capital investments with respect to freight movement.

1. Main Page - https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee/cfmp_2020
2. DRAFT CFMP: Chapters 1-6 (343 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftchapter17final.pdf>
3. DRAFT CFMP: Appendices (155 pages) - <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/freight-cfmp-2019-draft/00-cfmpdraftappendicesfinal.pdf>

B. **Comments on draft CFMP due by 5PM PST on 1/30/20 via email to: cfmp@dot.ca.gov**

2. National Freight Strategic Plan (NFSP): Request for Information

A. Requesting public comments on refinement of the NFSP.

1. Main Page - <https://www.transportation.gov/freight>

B. **Comments due by 2:00PM PST on 2/10/20**

1. Main Page - <https://www.transportation.gov/regulations-fr/notices/2019-27897>
2. RFI Document - <https://www.govinfo.gov/content/pkg/FR-2019-12-27/pdf/2019-27897.pdf>
3. Federal Register Page - <https://www.federalregister.gov/documents/2019/12/27/2019-27897/national-freight-strategic-plan-request-for-information>
4. Docket Page - <https://www.regulations.gov/docket?D=DOT-OST-2019-0184>
5. 2016 NFSP Draft - https://www.transportation.gov/sites/dot.gov/files/docs/DRAFT_NFSP_for_Public_Comment_508_10%2015%2015%20v1.pdf

3. FHWA Alternative Fuel Corridor Designations

A. FAST Act: Section 1413 requires US DOT to designate national electric vehicle charging, hydrogen, propane and natural gas fueling corridors.

1. Main Page - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/

B. **Nominations due by 2PM PST on 2/26/20**

1. Request for Nominations - https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/rfn4.cfm
2. Frequently Asked Questions - https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/faq/index.cfm

C. Contacts

1. Diane Turchetta - Diane.Turchetta@dot.gov / 202-493-0158
2. Mike Scarpino - Michael.Scarpino@dot.gov / 617-494-3373
3. Stephen Costa - Stephen.Costa@dot.gov / 617-494-3852
4. Sara Secunda (GIS/shapefiles) - Sara.Secunda@dot.gov / 617-494-3601

D. Alternative Fuel Corridor Designations – Selected portions of 100 Interstates and 76 US Highways/State Routes that will serve as the basis for a national network of alternative fuel corridors spanning 46 states.

1. Corridor Maps - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/maps/
 2. Signage Ready Designations - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/ready/signageready.pdf
 3. Signage Pending Designations - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/pending/signagepending.pdf
 4. Manual on Uniform Traffic Control Devices (MUTCD): Signing for Designated Alternative Fuels Corridors 12/21/16 - http://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/mutcd122116.pdf
 5. Email Listserv Sign Up - https://public.govdelivery.com/accounts/USDOTFHWAHEP/subscriber/new?topic_id=USDOTFHWAHEP_50
4. FTA Low or No Emission (Low-No) Bus Program
- A. Main Page - <https://www.transit.dot.gov/funding/grants/lowno>
 - B. FY19 awards announced 7/26/19 = \$84.9M nationwide to support the deployment of transit buses and infrastructure that use advanced propulsion technologies.
 1. Press Release - <https://www.transit.dot.gov/about/news/us-department-transportation-announces-85-million-grants-projects-nationwide-expand>
 2. Selected Projects - <https://www.transit.dot.gov/funding/grants/fiscal-year-2019-low-or-no-emission-low-no-bus-program-projects>
 3. Implementation Guidance - <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/grants/grant-programs/133356/fy19-low-no-frn-project-selections.docx>
 - A. FY18 awards announced 8/24/18 = \$84.45M nationwide for low & zero emission transit bus deployment.
 4. Press Release - <https://www.transit.dot.gov/about/news/FY18-Low-No-Project-Selections>
 5. Selected Projects - <https://www.transit.dot.gov/funding/grants/fiscal-year-2018-low-or-no-emission-low-no-bus-program-projects>
 - B. Contact - Tara Clark, FTA Office of Program Management (202-366-2623 / tara.clark@dot.gov)
5. California Freight Mobility Plan (CFMP)

- A. Caltrans Freight Planning Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning>
- B. FHWA MAP-21 Freight Provision Fact Sheet - <https://www.fhwa.dot.gov/map21/factsheets/freight.cfm>
- C. CFAC Main Page - <https://dot.ca.gov/programs/transportation-planning/freight-planning/ca-freight-advisory-committee>
- D. Stakeholder Survey - <http://survey.constantcontact.com/survey/a07efol0glzjlwin277/a018wjuabggzm/questions>
- E. Email Listserv Sign Up - https://forms.dot.ca.gov/lc/content/xfacforms/profiles/default.html?contentRoot=repository%3A%2F%2F%2FApplications%2FCFMP%2F1.0%2FForms&template=CFMP_GetInvolved.xdp&dataRef
- 6. California Sustainable Freight Action Plan (CSFAP)
 - A. *Related web references currently unavailable due to 7/1/19 ADA compliance revamp of Caltrans website.*
- 7. FTA Bus & Facilities Infrastructure Investment Program
 - A. Main Page - <https://www.transit.dot.gov/funding/grants/buses-and-bus-facilities-grants-program-5339>
 - B. \$366.3M nationwide for fixed route bus replacements and related facility upgrades.
 - C. Solicitation closed 8/6/18
 - 1. RFP released 6/21/18 - <https://www.transit.dot.gov/funding/applying/notices-funding/buses-and-bus-facilities-infrastructure-investment-program-fy-2018>
 - 2. RFP Document - https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/funding/applying/notices-funding/116976/fy2018-bus-and-bus-facilities-grants-nofo_0.pdf
 - 3. Grants.gov Page - <https://www.grants.gov/web/grants/view-opportunity.html?oppId=306423>
 - D. FY17 awards announced 4/5/18 = \$264.4M for fixed route bus replacements and related facility upgrades.
 - 1. Award Announcement - <https://www.transit.dot.gov/about/news/us-department-transportation-announces-264-million-grants-modernize-and-improve-america>
 - 2. Selected Projects - <https://www.transit.dot.gov/funding/grants/fiscal-year-2017-bus-and-bus-facilities-projects>
- 8. FTA Zero Emission Research Opportunity (ZERO) Program
 - A. Main Page - <https://www.transit.dot.gov/zero-emission-research-opportunity-zero>
 - B. \$2.75M nationwide to facilitate the advancement, production, and deployment of zero-emission public transportation vehicle technology and related infrastructure. Eligible applicants are limited to nonprofit organizations leading a consortium of entities, including state and local governments and at least one provider of public transportation.

1. Solicitation closed on 2/21/17 -
<https://www.transit.dot.gov/funding/grants/grant-programs/zero-emission-research-opportunity-zero>
9. Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies (FASTLANE) Grant Program
 - A. \$800M-\$1B/yr nationwide for projects that address major issues facing our nation's highways, bridges and freight infrastructure.
 - B. Main Page - <https://www.transportation.gov/buildamerica/infragrants>
 - C. Fact Sheet -
<https://www.fhwa.dot.gov/fastact/factsheets/fastlanegrantsfs.cfm>
10. Fixing America's Surface Transportation (FAST) Act
 - A. Main Page & Summary - <http://transportation.house.gov/fast-act/>
 - B. Caltrans Bill Analysis 12/11/15 -
<http://www.dot.ca.gov/hq/transprog/map21/reauthorization/ca-fedtranliaison-fastactmemo.pdf>

NOTES

- Item skipped due to time constraint.
- See notes & references above.

6) Next Steps & Action Items

- a. Discuss action items related to CATI partner agency collaboration/coordination.
- b. Discuss future CATI Liaison agenda items.
- c. Next CATI Liaisons teleconference – Thursday 2/13/20, 10:00-11:00AM PST/1:00-2:00PM EST

NOTES

- *See notes at top.*

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